FADING FLUCTUATION AND MOBILITY IN WIRELESS COMMUNICATION SYSTEMS filed concurrently herewith, U.S. Patent Application 09/288,368, entitled A METHOD OF QUEUE LENGTH BASED BURST MANAGEMENT IN WIRELESS COMMUNICATION SYSTEMS, filed concurrently herewith, all of which are assigned to the same assignee and are incorporated by reference herein. –

REMARKS

Claims 1-30 are pending in the application.

Claims 1, 3, 7, 8, 14, 15, 22, 25, 27 and 30 were rejected.

Claims 2, 4-6, 9-13, 16-21, 23, 24, 26, 28 and 30 were objected to.

I.   Objection to Specification

The specification was objected to because of an informality, specifically missing serial numbers for referenced related patent applications. Applicants have amended the specification to address that objection.

II.   35 U.S.C. §102 Claim Rejections

In the Office Action, claims 1, 3, 7, 8, 14, 15, 22, 25, 27 and 30 were rejected under 35 USC §102(b) as being anticipated by Tiuraniemi (U.S. Patent No. 5,418,787). Applicants respectfully traverse that rejection and request reconsideration by the Examiner.

The invention disclosed and claimed in this application is directed to an improved methodology for transmission of high-speed data bursts via a traffic channel in a wireless communication system, particularly a system based on CDMA modulation and coding. As Applicants describe in the Specification, data transmission in a wireless communication system is conventionally sent in bursts, with the burst duration determined in respect to a fill level of an input buffer. However, as Applicants also explained, it is not uncommon for additional data packets

2

from the same the user to become available in the input buffer prior to the ending of the data burst duration. It would, as Applicants teach, increase transmission efficiency if those later-arriving data packets from the common user could be included in the currently active data burst (which is not possible with methods of the prior art). To that end, the invention provides a methodology for accommodating later-arriving data packets by assigning a burst duration time that is larger than necessary to transmit the data available in the buffer at the sampling time. Thus, as additional data packets for the user enter the input data buffer, they can be accommodated in the presently active data burst. To avoid unnecessarily wasting transmission resources in the event that such additional data packets do not become available in the input data buffer, the invention provides a sliding time interval, independent of, and shorter than the burst duration, which is periodically restarted during the course of a given burst duration as a function of data packets being detected as available for transmission. Accordingly, should no packets be detected from the time a given time interval is restarted to the end of that interval, the invention operates to terminate the data burst (rather than wait for the extended burst duration to run its course).

The teaching of Tiuraniemi is directed to an entirely different idea. Specifically, the thrust of Tiuraniemi is directed to an algorithm for prioritizing particular types of control messages transmitted on a shared control channel of a wireless system. Note that Applicants' invention involves neither prioritization of information, nor the use of a shared channel.

While Tiuraniemi includes a brief discussion of its methodology being used with "a system where the length of a transmission time slot can be varied in accordance with the amount of signaling passing through the base station" (Col. 2, Lines 5-8), it is clear from that discussion that no intra-burst variation is contemplated. That is, the variation of transmission time-slot length for a shared control channel as contemplated by Tiuraniemi is plainly occurring prior to

3

the beginning of a given time slot, and once a slot size is determined, it remains fixed for the duration of the time slot. Certainly, nothing in the teaching of Tiuraniemi can reasonably be construed to show (or even suggest) an activity time interval operating within a data burst, and providing a basis for adjustment of the data content of a given burst within the duration of an ongoing burst, as is provided by the invention.

Each of Applicants' independent claims includes a limitation directed to a monitoring function within a data burst duration in respect to the described known activity time period. There being no teaching in Tiuraniemi of any such idea, Applicants respectfully submit that Tiuraniemi cannot stand as an anticipation of their claimed invention. Withdrawal of the rejection of Applicants' claims as being anticipated by Tiuraniemi is accordingly respectfully requested.

III.   Allowable Subject Matter

Dependent claims 2, 4-6, 9-13, 16-21, 23, 24, 26, 28 and 30 were objected to as being dependent on a rejected base claim, but were indicated as being allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Applicants thank the Examiner for providing this indication of allowability. However, Applicants believe that each of the independent claims serving as a base claim for these allowable dependent claims is also allowable over the art of record, for the reasons indicated above. Accordingly, the Applicants have determined not to present any new independent claims at this time.
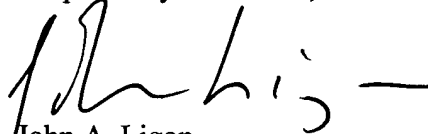
IV. Conclusion

Having addressed the Examiner's rejection bases herein, it is believed that, in view of the preceding remarks, this application now stands in condition for allowance. Such allowance is respectfully requested.

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Please charge any fees due in respect to this amendment to Deposit Account No. 50-1944.
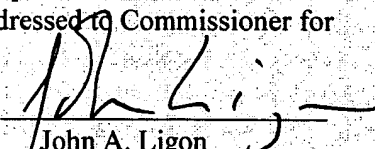
Respectfully submitted,

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Dated: May 29, 2003

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I hereby certify that this Response to Office Action is being deposited with the United States Postal Service as First Class Mail, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313 on May 29, 2003.

By: _____
John A. Ligon